



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Gregory J. McCollum et al.

Serial No. 10/005,830

Filed: November 8, 2001

For: PHOTODEGRADATION-RESISTANT  
ELECTRODEPOSITABLE COATING  
COMPOSITIONS AND PROCESSES  
RELATED THERETO

Patent Application

Group Art Unit: 1741

Atty Docket No.: 1704A1

Examiner: Not Assigned

1741  
#4  
JC

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The documents listed on the attached Form PTO-1449 are brought to the attention of the United States Patent and Trademark Office with respect to the application identified above in accordance with the provisions of 37 CFR 1.56, 1.97, and 1.98. Because this Information Disclosure Statement is being submitted before the first Office Action on the merits, no fee is believed to be due.

It is requested that the Examiner consider these documents and that they be made of record in the application.

Respectfully submitted,

Deborah M. Altman, Esq.  
Attorney for Applicants  
Registration No. 42,259

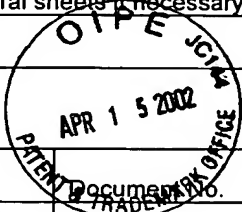
*Deborah M. Altman*  
Telephone: (412) 434-2922  
Facsimile: (412) 434-4292

RECEIVED  
APR 17 2002  
TC 1700

Pittsburgh, Pennsylvania  
April 10, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231	
on <u>April 10, 2002</u> Date	<u>Susan M. O'Leary</u> Signature
Susan M. O'Leary Typed or Printed Name of Person Signing Certificate	

		Atty. Docket No. 1704A1	Serial No. 10/005,830
LIST OF CITATIONS BY APPLICANT (Use several sheets if necessary)		Applicant: Gregory J. McCollum et al.	
		Filing Date: November 8, 2001	Group Art Unit: 1741



## U.S. PATENT DOCUMENTS

Exam. Init.	Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
AA	4,007,154	02/1977	Schimmel et al.	260	37 EP	
AB	4,576,979	03/1986	Schipp et al.	523	404	
AC	4,715,898	12/1987	Johnson	106	308 Q	
AD	4,755,418	07/1988	DebRoy et al.	428	215	
AE	5,205,916	04/1993	Chung et al.	204	181.7	
AF	5,260,135	11/1993	Corrigan et al.	428	416	
AG	5,385,962	01/1995	Corrigan et al.	523	414	
AH	5,389,219	02/1995	Zwack et al.	204	181.1	
AI	5,487,914	01/1996	Gerlock et al.	427	140	
AJ	5,797,987	08/1998	Rossio	106	14.12	
AK	5,948,229	09/1999	Zwack et al.	204	502	

RECEIVED  
APR 17 2002  
TC 1700

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Subclass	Translation Yes No
AL	JP 00281943A	10/2000	Japan			x
AM						
AN						
AO						
AP						

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	G.A. Zerlaut et al.; <u>Accelerated Outdoor Exposure Testing of Coil Coatings by the Emma(gua)<sup>®</sup> Test Method</u> ; pp. 1-16 et seq.; Read at the 1984 Winter Meeting of European Coil Coaters Assoc., Brussels; DSET Laboratories, Inc.
AS	J.L. Gerlock et al.; <u>Accelerated Weathering Tests for Automotive Paint Systems: Case for Distorted Weathering Chemistry</u> ; pp. 155-156.
AT	Larry P. Haack et al.; <u>Bake Oven Induced Variation of Surface Chemistry on Electrocoat Paint: Effect on Primer-Electrocoat Intercoat Adhesion</u> ; Journal of Coatings Technology; Vol. 72, No. 903; pp. 63-70; April 2000.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)

	Att. Docket No. 1704A1	Serial No. 10/005,830
LIST OF CITATIONS BY APPLICANT (Use several sheets if necessary)	Applicant: Gregory J. McCollum et al.	
	Filing Date: November 8, 2001	Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam. Init.	Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
AA	6,017,432	01/2000	Boyd et al.	204	501	
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Subclass	Translation Yes	Translation No
AL							
AM							
AN							
AO							
AP							

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	David R. Bauer; <u>Chemical Approaches for Evaluating Automotive Materials and Test Methods</u> ; Ford Motor Company.
AS	Jack P. Wineburg; <u>Comparison Between Outdoor and Artificial Weathering Tests for Coatings</u> ; Automotive Body Painting; pp. 18-22; IBEC '94.
AT	Mark E. Nichols et al.; <u>Crosslinking and Weathering Behavior of UV Curable Automotive Clearcoats</u> ; Polymeric Materials: Science & Engineering 2001, 85; pp. 137-138.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)

	Atty. Docket No. 1704A1	Serial No. 10/005,830
<b>LIST OF CITATIONS BY APPLICANT</b> (Use several sheets if necessary)	Applicant: Gregory J. McCollum et al.	
	Filing Date: November 8, 2001	Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam Init.	Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

## FOREIGN PATENT DOCUMENTS

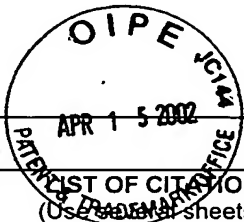
		Document No.	Date	Country	Class	Subclass	Translation Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	J.L. Gerlock et al.; <u>Determination of active HALS in automotive paint systems II: HALS distribution in weathered clearcoat/basecoat paint systems</u> ; Polymer Degradation and Stability 73; pp. 201-210; 2001.
AS	A.V. Kuchеров et al.; <u>Determination of active HALS in weathered automotive paint systems I. Development of ESR based analytical techniques</u> ; Polymer Degradation and Stability 69; pp. 1-9; 2000.
AT	C.A. Smith et al.; <u>Determination of ultraviolet light absorber longevity and distribution in automotive paint systems using ultraviolet micro-spectroscopy</u> ; Polymer Degradation and Stability 72; pp. 89-97; 2001.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)



Attorney Docket No. 1704A1		Serial No. 10/005,830
Applicant: Gregory J. McCollum et al.		
Filing Date: November 8, 2001		Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam. Init.	Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

RECEIVED  
APR 17 2002  
TC 1700

## FOREIGN PATENT DOCUMENTS

Document No.	Date	Country	Class	Subclass	Translation Yes	Translation No
AL						
AM						
AN						
AO						
AP						

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	M.E. Nichols et al.; <u>The effects of weathering on the mechanical performance of automotive paint systems</u> ; Progress in Organic Coatings 35; pp. 153-159; 1999.
AS	D.R. Bauer et al.; <u>Evaluation of Accelerated Weathering Tests for a Polyester-Urethane Coating Using Photoacoustic Infrared Spectroscopy</u> ; A Journal of Coatings Technology Reprint.
AT	Dr. Richard J. Higgins; <u>Powder Coatings Focus on Usage Trends – US Market Has Been Slow to Jump On Technology Bandwagon</u> ; Metal Architecture magazine.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)



Atty. Docket No. 1704A1		Serial No. 10/005,830
LIST OF CITATIONS BY APPLICANT (Use several sheets if necessary)		Applicant: Gregory J. McCollum et al.
Filing Date: November 8, 2001		Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED  
APR 17 2002  
TC 1700

## FOREIGN PATENT DOCUMENTS

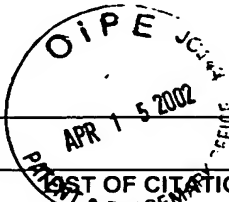
		Document No.	Date	Country	Class	Subclass	Translation Yes No	
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	M.J. Rokosz et al.; <u>N CP/MAS solid-state NMR spectroscopy of a N-enriched hindered amine light stabilizer photolyzed in acrylic/melamine and acrylic/urethane coatings</u> ; Polymer Degradation and Stability 70; pp. 81-88; 2000.
	AS	J. L. Gerlock et al.; <u>O<sup>-</sup> time-of-flight secondary ion mass spectrometry technique to map the relative photooxidation resistance of automotive paint systems</u> ; Polymer Degradation and Stability 65; pp. 37-45; 1999.
	AT	J.L. Gerlock et al.; <u>On the Combined Use of UVA, HALS, Photooxidation, and Fracture Energy Measurements to Anticipate the Long-Term Weathering Performance of Clearcoat/Basecoat Automotive Paint Systems</u> ; Journal of Coatings Technology; Vol. 73, No. 918; pp. 45-54; July 2001.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)

		Atty. Docket No. 1704A1	Serial No. 10/005,830
<b>LIST OF CITATIONS BY APPLICANT</b> (Use several sheets if necessary)		Applicant: Gregory J. McCollum et al.	
		Filing Date: November 8, 2001	Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED  
APR 17 2002  
TC 1700

## FOREIGN PATENT DOCUMENTS

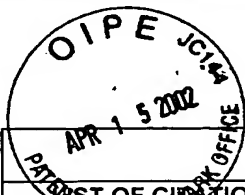
		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	J.L. Gerlock et al.; <u>On the use of Fourier transform infrared spectroscopy and ultraviolet spectroscopy to assess the weathering performance of isolated clearcoats from different chemical families</u> ; Polymer Degradation and Stability 62; pp. 225-234; 1998; Elsevier Science Limited.
	AS	Atlas Weathering Services Group; <u>Outdoor Accelerated Weathering – Emmaqua® + Schematic</u> ; 1996.
	AT	Mark E. Nichols et al.; <u>Photooxidation Induced Chain Scission and Crosslinking in Acrylic/Melamine Coatings</u> ; pp. 403-404.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
 SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)



Atty. Docket No. 1704A1	Serial No. 10/005,830
Applicant: Gregory J. McCollum et al.	
Filing Date: November 8, 2001	Group Art Unit: 1741

## U.S. PATENT DOCUMENTS

Exam. Init.	Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

Document No.	Date	Country	Class	Subclass	Translation Yes	Translation No
AL						
AM						
AN						
AO						
AP						

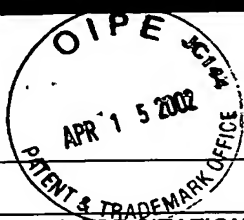
## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	M.E. Nichols et al.; Rates of photooxidation induced crosslinking and chain scission in thermoset polymer coatings II. Effect of hindered amine light stabilizer and ultraviolet light absorber additives; Polymer Degradation and Stability 69; pp. 197-207; 2000.
AS	ASTM; Standard Practice for Conducting Black Box and Solar Concentrating Exposures of Coatings; August 2001; Designation: D 4141-01.
AT	ASTM; Standard Practice for Performing Accelerated Outdoor Weathering of Nonmetallic Materials Using Concentrated Natural Sunlight; March 1999; Designation: G 90-98.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)





		Atty. Docket No. 1704A1	Serial No. 10/005,830
LIST OF CITATIONS BY APPLICANT (Use several sheets if necessary)		Applicant: Gregory J. McCollum et al.	
		Filing Date: November 8, 2001	Group Art Unit: 1741

**U.S. PATENT DOCUMENTS**

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**RECEIVED**  
APR 17 2002  
TC 1700

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subclass	Translation Yes No	
	AL							
	AM							
	AN							
	AO							
	AP							

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	AR	ASTM; <u>Standard Practice for Performing Outdoor Accelerated Weathering Tests of Plastics Using Concentrated Sunlight</u> ; May 1994; Designation: D 4364-94.
	AS	The Engineering Society for Advancing Mobility Land Sea Air and Space International – Surface Vehicle Standard; (R) <u>Accelerated Exposure of Automotive Exterior Materials Using a Solar Fresnel Reflector Apparatus</u> ; pp. 1-13; 1994.
	AT	D.M. Keller; <u>Testing to Failure of Paint on Plastics</u> ; Proceedings of the Advanced Coatings Technology Conderence, 3-5 November 1992; pp. 133-143.

Examiner	Date Considered
----------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
SUBSTITUTE DISCLOSURE STATEMENT FORM (PTO 1449)